



The Digital Disease in Academic Libraries

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ABSTRACT

This article uses organizational design and management literature to shed critical light on a peculiar quirk of academic library organizational structures: the existence of job titles and departments that isolate digital functions and workflows. An exploration of the literature along four interrelated themes provides insight into the irrational nature of a digital focus in the organizational design and management of academic libraries. These themes are organizational design theory and the arrangement of work in academic libraries, the reliance on strategic alignment through buzzwords as a means of coping with uncertainty, the tendency of academic library structures to resemble one another, and challenges associated with knowledge sharing and professional development in hierarchical organizations. These contexts frame the symptoms of a newly discovered Digital Disease in academic libraries, all of which are derived from the convergence of the article's four thematic preconditions. Though the disease is the lens through which contemporary academic library organization is analyzed, its existence serves to highlight pre-existing patterns in academic library management that warrant further scrutiny.

Keywords: digital scholarship · library management · library organization

RÉSUMÉ

Cet article utilise l'aménagement organisationnel et les ouvrages sur la gestion pour jeter un éclairage critique sur une bizarrerie des structures organisationnelles des bibliothèques universitaires : l'existence de titres de poste et de services qui isolent les fonctions et les flux de travail numériques. Une exploration de la documentation concernant quatre thèmes interreliés permet de comprendre la nature irrationnelle de l'orientation numérique dans l'aménagement organisationnel et la gestion des bibliothèques universitaires. Ces thèmes s'inscrivent dans la théorie de l'aménagement organisationnel et de l'organisation du travail dans les bibliothèques universitaires, le recours à l'alignement stratégique fondé sur des mots à la mode comme moyen de faire face à l'incertitude, la tendance des structures des bibliothèques universitaires à se ressembler, et les défis associés au partage des connaissances et au perfectionnement professionnel dans les organisations hiérarchisées. Ces contextes encadrent les symptômes de ce que j'identifie comme la maladie numérique dans les bibliothèques universitaires, qui découlent tous de la convergence des quatre conditions préalables thématiques de l'article. Bien que la maladie soit le prisme à

travers lequel l'organisation des bibliothèques universitaires contemporaines est analysée, son existence sert à mettre en évidence des modèles préexistants dans la gestion des bibliothèques universitaires qui justifient un examen plus approfondi.

Mots-clés : *gestion des bibliothèques · organisation des bibliothèques · travaux d'érudition en version numérique*

THOUGH several recent books and articles have been written about change and adaptation in contemporary academic libraries (Mossop 2013; Eden 2015; Lewis 2016), there are few critical examinations of change practices at the organizational level. One example, from which this paper draws its title, is Braden Cannon's (2013) *The Canadian Disease*, where the term *disease* is used to explore the trend of amalgamating libraries, archives, and museums into monolithic organizations. Though it is centered on the impact of institutional convergence, Cannon's analysis uses an ethical lens to critique the bureaucratic absurdity of combined library-archive-museum structures. This article follows in Cannon's steps, using observations from organizational design and management literature to critique a current trend in the strategic planning processes and structures of contemporary academic libraries. My target is our field's ongoing obsession with digital transformation beyond the shift from paper-based to electronic resources, examined in a North American context and framed here as *The Digital Disease*.

More specifically, this article undertakes an examination of the tendency of academic libraries to embed functions labeled as digital into job titles, department titles, and strategic plans. Bolin's (2018) classification of the ideal academic library consists of departments such as access services, reference and instruction, collection development, and cataloguing. By contrast, libraries afflicted with *The Digital Disease* claim that innovation and service excellence can be materialized through the creation of departments and roles that put digital first. Examples appearing in academic library structures include units with names such as *digital engagement* and *digital initiatives*. Unfortunately, this organizational arrangement emphasizes means over ends. It insists that technology's effect on information management, resource access, and scholarship warrants the isolation of digitally-focused functions rather than the integration of those functions into the existing environment. This classification is short-sighted and detrimental to academic libraries, leaving them ill-equipped to serve the needs of their institutions—most of which do not divide their disciplines into digital and non-digital variants.

Organizational and technological fads are not new to academic libraries. In fact, many academic libraries bear the scars of an earlier form of this illness that

we might call *The E-Disease*. The indelible marks of the sickness, which infected library functions by affixing an e to existing resources and services, are still present today in ebooks and e-resources (otherwise known as “books” and “resources”). The Digital Disease acknowledges the validity and importance of the print-to-digital transformation, but this disease is more severe; it has mutated from a format-oriented affliction to an organizational one. Though the Digital Disease’s early library incarnations involved creating digital analogues for existing library materials, I will outline how its more recent manifestations have emerged to infect methods and activities instead, creating specialized and digitally distinct services in the areas of learning, initiatives, scholarship, and engagement. These new services are bounded by vague labels and vaguely defined functions, materializing the irrational in the academic library’s organizational design.

This article outlines The Digital Disease through a critical examination of common academic library structures from four interrelated perspectives. It begins with an exploration of the most visible appearance of the disease: how it is embedded in organizational charts. From this foundation, the article explores and critiques the form of academic library organization from three additional viewpoints: the increasing reliance on strategically-oriented management buzzwords, the unnerving reality that the organizational charts of all academic libraries look eerily similar, and the way that patterns of academic library organization contribute to the stagnation of librarians’ professional development and the fractional realization of organizational learning. Much like the recent global pandemic, The Digital Disease is an affliction to be conquered, yet it can prove valuable for highlighting pre-existing, problematic conditions that require urgent attention.

Digital Organizations

It should be made clear from the outset that The Digital Disease is not simply an expression of technology’s effect on library operations and organizations. Even management experts like Peter Drucker insist that organizations *must* change when new technologies are introduced (Williams 1995). Indeed, a utilitarian approach to library management has always placed automation and efficiency at the forefront of library organization. Dewey suggested that the American Library Association’s motto should be “the best reading for the greatest number at the least cost” (Ranganathan 1938, 156) and Ranganathan noted that economy would always be a mediating concern in the practice of librarianship (1938, 55). In recent decades, LIS literature has often cited the rapid advancement of technological change as a key driver for the revision of library operations (De Klerk and Euster 1989; Williams 1995; Ward 2000; Wilson and Halpin 2006; Marty 2010; Ellis et al. 2014). The ongoing shift from print-centred to

digitally focused collections, and from locally stored paper catalogues to networked electronic metadata, is a driver. It has contributed to increased automation of the internal operations of libraries, in the form of centralized cataloguing, integrated library systems, electronically mediated access services (like interlibrary loans), and more.

Technology's impact on the user side of libraries has also been addressed. Much of Buckland's *Redesigning Library Services: A Manifesto* (1992) dealt with the implications of technology on information access and alterations to everything from physical storage to reference services. The reduced demand for physical collections has given rise to the idea of the library as a space for collaboration and information seeking rather than information storage (Higa et al. 2005, 41–42), and the term OPAC (Online Public Access Catalogue), which was coined in the early days of online databases, has almost disappeared now that almost all catalogues are online and accessible to the public.

Many of these adjustments became mainstream in the last decade of the 20th century when the shift to electronic resources, the availability of Internet-enabled network services, and the growth of remote access began to fundamentally transform the library. In a context of ever-decreasing budgets and neoliberal pressure to demonstrate value to the institution (Buschman 2014; Lawson, Sanders, and Smith 2015), academic libraries have restructured as a response to these technological advances. However, they have often been accused of reacting slowly (Larsen 1991; Goetsch, Haddock, and Stockham 2017). The difficult and unpredictable nature of technology's impact on library structures even led to the creation of a technology-agnostic form of library organization (Hoadley and Corbin 1990), intended as a universal framework centred on building library services from the user's point of view. The ongoing impact of technology on library organization supports Jay Galbraith's argument that all organizations have evolutionary cycles, and that they all reach a point of critical environmental uncertainty which forces them to reorganize in order to meet their goals (as cited in Williams 1995, 94).

Academic libraries have dutifully worked to remain efficient and to adapt to technological change, but their efforts can be taken too far when considering strategies for organizational optimization. To highlight the absurdity of some academic library organizational charts, it is necessary to review some basics of organizational theory. Specifically, let's contrast organizational design and organizational structure. Organizational design is the process of creating an organizational structure (Bowditch, Buono, and Stewart 2008), and it typically balances the sum of work relationships in an organization in two ways: first, there is the patterning of authority in the organization—who reports to whom; second, there is the architecture of how work is performed—the actual flow of information

between people as work is completed and services are provided (Ranson, Hinings, and Greenwood 1980; Mintzberg and Van Der Hayden 2000). An organizational chart, which is often the only artifact of an organizational design process, may have little to no bearing on how work is performed in an academic library. The belief that these two things can be represented with one picture is derived from the era of scientific management, when the creation of discrete physical goods and the efficiency of their associated production processes was the focus (Pugh 1997; Cooney 2018). Though many libraries have aimed to “flatten” their organizational structures in recent years, they are still largely hierarchical and driven by Taylor- and Ford-era management thinking (Bolin 2018; Stevenson 2011, 778–80). This runs counter to contemporary knowledge production processes, which are often intangible, iterative, and non-linear (Mintzberg and Van Der Hayden 2000).

With this groundwork laid, here is our first symptom:

If your library’s organizational chart highlights digital forms of existing functions, you might have The Digital Disease.

The Digital Disease fractures many of the academic library’s main workflows—patron interactions, library operations, and services—along technological fault lines. The inclusion of the word *digital* implies the exclusion of things that are not digital: as Travica (1997) notes, these categorizations pre-empt other technologies and complicate knowledge production and dissemination workflows, whether or not these workflows are purely analogue. In terms of authority, these organizational distinctions separate reporting lines for different forms of the same work. This creates illogical situations where people perform similar or overlapping functions, for similar purposes, but report to different managers within the same organization.

The digital/non-digital distinction is illogical in another way. The Digital Disease suggests that digital workflows are fundamentally and uniquely different from their non-digital counterparts, and that there should be an analogous space for workflows that are *entirely* non-digital. It can be argued that digital is an ineffectual distinction that glosses over the variety of affordances that contemporary media and services offer. There are distinct variations in the ways libraries purchase, acquire, license, and deploy digital materials (for example ebooks, databases, open educational resources, curated data sets and content creation platforms), but no totally manual, paper-based library workflows still exist.

Taking the two aspects of balancing conditions of organizational structure (authority and workflow) as a given, let us use a thought experiment to interrogate the logic of including digital departments (such as digital initiatives, digital engagement, or digital scholarship) as elements on an organizational chart. Let us

imagine an academic library for which there exists a digital engagement librarian and a community engagement librarian. Since the digital engagement librarian is expected to have a broad range of technical skills (Skene 2018), they will likely be placed among or alongside a technical services team. The community engagement librarian, meanwhile, is likely to be enmeshed in public services (Bolin 2018). Each librarian's work overlaps the other's, but their lines of reporting differ, and so extra work is involved to ensure efforts are coordinated across departments. Moreover, the scope of the overlap is unclear: for example, which librarian should use digital tools to undertake community engagement work (or, in other words, what are the boundaries and scope of each position)? Whose efforts take precedence when engagement activities create dependencies and implications for workflows in collections, cataloguing, or other areas? Here, too, additional work is required in order to maintain clarity and prevent conflict. A common tactic for addressing these issues is to overlay another form of organization: libraries may layer team- or cluster-based mechanisms for work coordination (De Klerk and Euster 1989; Higa et al. 2005). This makes cross-functional teams and matrix-style management structures common, but these structures have well-known problems (Davis and Lawrence 1978). Rather than the irrational decision to create an arbitrarily-defined organizational structure, followed by the creation of additional organizational structures to manage problems with the initial, arbitrary definition, a more direct and transformational approach might be found by focusing on the goal of the digital program (its why), instead of its mere existence (its what), when considering organizational design (Williams 1995).

Issues associated with The Digital Disease are not easily isolated, and the arguments laid out in this section hint at some of the perspectives to come, but the disease's visibility within organizational charts is a leading indicator of infection. In the next three sections I will examine other symptoms by focusing on three other thematic areas: definitions, isomorphism, and skills.

Digital Definitions

Digital is a buzzword. Here, I refer to a definition of management buzzwords as articulated by Cluley (2013, 35), who stated that they allow people to speak with an air of "apparent authority" that can protect them from criticism. A more recent conception, derived from Frankfurt's (2005) seminal essay, and from interrogations of the use of buzzwords in an organizational context (Cohen 2002; Christensen, Kärreman, and Rasche 2019), is *bullshit*. Whereas Frankfurt's original essay discussed the characteristics of bullshitters, more recent works have examined the output of bullshitters—the bullshit itself. Christenson et al. (2019, 1591) use the phrase "unclassifiable unclarity" to refer to honest people who reproduce bullshit words either because they are expected to speak in a certain way or because they are unable

to articulate the concept under discussion with clarity. Buzzwords are not gibberish: each of them means something to someone, but the terms become bullshit when they are used in environments where people who are unaware of their meaning can be charmed by their very presence. The key to the creation of a new buzzword, says Cluley, is to take a word that has a specific meaning in one context, and then place it into a context where that meaning is unclear.

The LIS literature paints a trail for the use of the word *digital* that illustrates its increasing buzzword status due to its application in numerous contexts. In the mid-1990s the term *digital library* was popular and was used to represent the increasing focus on the format shift from print-based resources to electronic equivalents. A survey of 205 academic libraries by Travica (1997) found an almost-universal agreement on the definition, noting that only one library had given it an organizational gloss. Related terms such as *digital resource* and *digital collection* are similarly clear because they represent an electronic analogue of one object or a collection of objects. A term like *digital literacy*, however, is somewhat less specific; though Paul Gilster (1997) scoped the term to cover situations where information is presented by computer, more recent definitions are “so broad that some experts stay away” (Heitin 2016, para. 3) because they cover everything from reading off screens to making sense of multimedia content and even content creation. In the spheres of library science and education, the digital modifier has shifted from an electronic analogue for a tangible item to a buzzword that can be applied to complex concepts such as scholarship, learning, pedagogy, knowledge, engagement, innovation, and research. The attempt to provide concise definitions for these terms has, contrary to intention, made them so vague as to be universally applicable. As an example, take this definition of digital learning, from the Evergreen Education Group (2015, 5):

Digital learning is any instructional practice in or out of school that uses digital technology to strengthen a student's learning experience and outcomes. Our use of the term is broad and not limited to online, blended, and related learning. It encompasses a wide range of digital tools and practices, including instructional content, interactions, data and assessment systems, learning platforms, online courses, adaptive software, personal learning enabling technologies, and student data management systems.

In response to this definition, the obvious question is: what *isn't* digital learning?

The previous example illustrates that academic libraries cannot be blamed for digital's context collapse. However, libraries have joined the fray and have eagerly absorbed digital-as-bullshit from its broader cultural context. From breathless descriptions of the digital age (Tredinnick 2008) to countless definitions of digital humanities (whatisdigitalhumanities.com features more than 800 and a Google

search for “what is digital humanities” provides thousands)¹ the word has been used increasingly as a generic catch-all adjective that implies innovation and transformation. This universal application of the word is a symptom of The Digital Disease, and can be seen in two specific areas of the academic library:

1. The proliferation of digital initiatives librarian and similar jobs, which were noted by Skene (2018) as an emerging career trend even though their specific roles and responsibilities remain broad and varied.
2. The explosion of digital scholarship centres and initiatives, which function as a service point for research support even though their “definition, purpose, and characteristics” are unclear (Lippincott and Goldenberg-Hart 2014, para. 1) and the term does not resonate with people outside the library (Kern 2019, 63).

These areas evoke the concepts of bullshit jobs (Graeber 2018) and business bullshit (Spicer 2018), both of which were mapped to academic libraries by Schmidt (2018). Her work linked the larger, cultural manifestations of bullshit to six library examples including the celebration of “leaders” and the increasing ambiguity of required skills and *raisons d’être*. To this list I would add our second symptom:

If you are unable to utter the name of a digitally associated job title or department without also having to provide a definition of its scope and purpose, you may have The Digital Disease.

When The Digital Disease surfaces in an academic library’s organizational structure, and then begins to assert itself in job descriptions and department names, it has already taken deep root. The next section will suggest one of the earliest means of transmission of the disease: the ways in which academic libraries imitate one another.

Digital Isomorphism

Max Weber (1983) argued that bureaucracies were an iron cage. He characterized them as organizations engaged in ongoing tasks, where those tasks are performed by trained people in an environment defined by rigid labour divisions, a chain of command, and formalized rules. Academic libraries fall into the category of *professional bureaucracies*, as defined by Mintzberg (1979): specialized institutions, staffed by trained but self-directed professionals, whose operations are standardized by the parameters of the profession itself. Expanding on these foundations, DiMaggio and Powell (1983) observe that bureaucracies are now ubiquitous, and that the driving force for bureaucratization has shifted from capitalist forces (in Weber’s conception) to something more abstract. They believe the prison of bureaucracy is the result of organizational efforts to deal with constraints and uncertainty—an assertion echoed by Lynch’s (1978, 267) examination of libraries as bureaucracies—contending that

1. Though its analysis and intersections with librarianship are beyond the scope of this paper, the role of digital in the humanities, and the use of the term *digital humanities*, has been the subject of its own broad and lengthy debate. For a robust range of perspectives, see Dinsman (2016).

“bureaucratization and other forms of organizational change occur as the result of processes that make organizations more similar without necessarily making them more efficient” (DiMaggio and Powell 1983, 147).

Centrally, DiMaggio and Powell assert that bureaucratic institutions are subject to isomorphism, meaning that organizations subject to the same external, environmental conditions begin to take on similar forms (Sills 1968). They identify three mechanisms for isomorphic change: *coercive*, which occurs when other organizations put formal or informal pressures on one another to create or preserve legitimacy; *mimetic*, which is the tendency for organizations to imitate one another in situations of uncertainty; and *normative*, which typically occurs as a result of professionalization (DiMaggio and Powell 1983, 150–53). Bolin (2018) writes that academic libraries are isomorphic, noting that all three of DiMaggio and Powell's mechanisms are at play. For example, academic libraries must align strategies with their parent institutions to comply with governmental performance standards and mandated metrics reports (coercive), they look to one another for examples of solutions to common problems (mimetic), and they are responsive to the statements of values, ethics, and professional standards set by the American Library Association and other leading bodies (normative).

Consistent with the isomorphic characterization of academic libraries, Bolin's (2018, 73) recent analysis reveals four broad organizational designs for libraries—print-centred with e-resources, e-focused, transitional, and refocused. Through this shift toward electronic resources, academic libraries have typically clung to organization along the lines of technical and public services. These lines have blurred, however, as technology's effect on library operations, services, and user needs have mandated deeper integration (Larsen 1991). Additionally, many common new library services have emerged in recent years; these include user experience, data curation, institutional repositories, and learning commons (Bolin 2018, 29). Noting that all four of Bolin's academic library types pivot around the shift to electronic resources, that advancing technology has placed constant pressure on organizational structures, and that the impact of technological change is unpredictable (Hansson 2011), it can be suggested that uncertainty has taken a prominent position alongside economy as a mediating concern in librarianship. This highlights the role of mimetic isomorphism over the other two types.

A more recent examination of mimesis can be found in Beckert (2010). Rather than characterizing imitation as a simple form of decision-making, Beckert presents the mechanism as a rational response to situations where the long-term effect of an organizational decision simply cannot be predicted. In a case where the only clear direction is the lack thereof, leaders will look to a model that appears to have been

successful, and they will imitate it. Should the decision result in failure, the leader is more or less absolved of blame because they were simply doing what other people would have done in their stead. In this context, librarianship's fetishization of metrics and trends reports appears reasonable and perhaps even necessary: leaders must look to trends within the field, and within the larger environment of higher education, in order to rationalize strategic decisions about library organization and services. As a result, we see academic libraries making regular use of "trends-based" reports from professional associations (such as IFLA's *Trend Report*, ACRL's *Academic Library Trends and Statistics Survey*, ALA's Libraries Transform initiative and EDUCAUSE's *Horizon Report*) and third-party organizations (such as Ithaka S+R and the Coalition for Networked Innovation).

This brings us to the third symptom:

If your library articulates the need for a digitally focused department or centre to meet the demands of the digital age (or other similar rhetoric), you might have The Digital Disease.

Libraries are not responsible for the creation of rhetoric around the digital age, the digital transformation, or the existence of digital natives. Widespread, multi-disciplinary discourse related to the post-industrial society (Bell 1973) and the knowledge economy (Houghton and Sheehan 2000; Bedford, Donley, and Lensenmayer 2015) has existed for decades and the term *digital* has always existed alongside it. Referring back to the earlier discussion of vague definitions and bullshit, it is worth noting that Phillip Broughton's original buzzword generator was created in 1968, and that it used the word *digital* as one of its key pieces (Cluley 2013, 36). Concerns about the organizational response to digital transformation have endured, however, as has already been discussed. Accordingly, institutions of higher education—including their libraries—have been forced to respond. The Digital Disease manifests as a collision of mimetic isomorphism and the adoption of buzzwords in the form of strategic plans whose use of digitally infused language legitimizes the value of the institution to the state. This is a form of coercive isomorphism, driven by the imperative that the entire education system should focus on equipping workers with the skills required for the digital economy. It is also mimetic isomorphism in the form of "strategizing by bullshit": the articulation of aspirational goals by managers "without a full understanding of what's going on" (Christensen, Kärreman, and Rasche 2019, 1595). When a strategic decision (such as the choice to create a digital initiatives division) becomes embedded in an organizational structure, it is an expression of the maxim that structure follows strategy (Fredrickson 1986). As a cogent example, take a 2014 meeting of directors of digital scholarship centres, in which common factors that led to their creation were

identified. These included coercive pressure, expressed as “a growing awareness by faculty or administration that students are graduating without the acquisition of contemporary skill sets” and mimetic pressure, expressed as “apprehension that peer institutions will eclipse the support or facilities offered at a particular university” (McKenzie and Martin 2016, 106).

There is one more point to be made on this topic, related to the “structure follows strategy” maxim. Frederickson’s (1986) critical analysis of strategic decision making within organizational structures provides some observations on Mintzberg’s (1979) professional bureaucracy classification. He notes that organizations within this category tend to be highly specialized, consisting of staff members with diverse personal goals. Organizational changes in these bureaucracies are difficult to implement, tend to require extensive bargaining, and are typically incremental. This suggests that existing structures become entrenched and tend to reproduce themselves: a digital initiatives unit might be forged as an incremental advance over a previous organizational design, but once it is created it will remain as its members fight to justify the need for its specialization. In other words, organizational strategy is directly influenced by organizational structure (Fredrickson 1986, 281).

The topic of specialization brings us to the fourth and final area of discussion: the effect of organizational structure on skills development and knowledge sharing.

Digital Knowledge and Skills

The preceding symptoms of The Digital Disease, illuminated by our analysis of academic library organization through management theory, lay the foundation for this topic. In some ways, it may be seen as an outcome of other three themes; it can also be argued that the symptom presented in this section is actually a pre-condition for infection. The division of a library’s organization into digital and non-digital elements, bolstered by the specialized nature of a professional bureaucracy, with conflicting lines of authority and informational workflows that cross departmental lines, has a necessary effect on the roles that library staff perform and the skills required to perform them. More directly, since librarians’ technical skills are increasingly concentrated in specialized digital roles, silos are created for professional and technical skill development in both the digital and non-digital areas of the library structure.

Silos are as common as books in academic libraries. Research for this article revealed a number of case studies of library reorganizations, all of which highlight the elimination of silos as a goal (Higa et al. 2005; Ellis et al. 2014; Goetsch, Haddock, and Stockham 2017). As was noted in the Digital Organizations section of this paper, the removal of silos typically involves flattening the reporting hierarchy, or carefully

aligning the form of the library with its function. Thus far, an argument has been made that the arbitrary creation of digital silos is a move in the wrong direction; what remains is to explain how organizational structures—whether they are digitally-centred or not—can affect the creation and distribution of knowledge *within* the library. There are two aspects to explore: the knowledge that must be shared across a library's organizational structure in order to provide services to patrons, and the skills that a specific function demands of a staff member.

Willem and Buelens argued that technological specialization within academic libraries increases knowledge complexity, or “the extent to which knowledge is tacit and dependent upon knowledge of a larger system” (2009, 153). According to Polanyi (1967), tacit knowledge is embedded, contextual, and organizational; explicit knowledge, by comparison, is expressed clearly at the individual level in the form of written procedures. In their study, Willem and Buelens found that high degrees of specialization in an organization make coordination between departments and divisions more difficult. This results in poor knowledge sharing—ironic, since a library cannot function efficiently without support from informed and effective knowledge workers. As professional bureaucracies, libraries rely much more on their intellectual assets than many other organizations. Complicating this context, Hendriks and Vriens (1999) also caution that is risky to assume that information in knowledge organizations is in the right place—or even that it is the right knowledge.

Vela (2018) points out that the impact of organizational structure on knowledge sharing in libraries has rarely been studied; however, her analysis of related literature provides some observations that are applicable to hierarchical structures such as libraries. She finds that specializations within departments and units act as a barrier to knowledge transfer, and that the North American values of labour mobility and individualism create additional friction. Staff who find that their knowledge is valuable are incentivized to be reluctant about sharing, since doing so may hurt their status (844). Combating these issues typically involves the creation of cross-functional mechanisms for information sharing. These may take the form of specific organizational tasks or processes that facilitate knowledge sharing, encouraging communities of interest (Hendriks 2006), but Vela points out that even these structures create barriers, since access to knowledge is often dependent on direct membership in the community of practice (2018, 844).

The organizational structures of libraries also place constraints on the skills of individual staff members. Choi and Rasmussen (2006) studied the skills needed for digital librarians. Not only did they observe an organizational separation between “community” and technical functions, but they also noticed that specialized technical knowledge of software platforms and technical standards was becoming more

critical for staff. In more recent years, analyses of digitally-connected library job advertisements have supported this finding: database design, metadata, systems administration expertise, familiarity with born digital materials, and web application development skills have become commonly sought (Tzoc and Millard 2011; Skene 2018), despite the fact that staff performing public services or liaison roles do not feel that these skills should be required for their work (Wilson and Halpin 2006; Corcoran and McGuinness 2014). In some cases, the desire to avoid skills silos results in the creation of “the unicorn job ad” (Schmidt 2018, 13), where an impossibly broad range of required skills are listed and positions are filled using a “best fit” model.

With this context in place, the fourth and final symptom is as follows:

If your liaison and public services librarians are disinterested in the development of technical skills because they do not view them as part of their job, you may have The Digital Disease.

Two things are worth noting here. First, this symptom has a corollary in technically skilled staff who do not see the value in so-called soft skills. The differentiation of skills between technical services and public services staff, combined with the quixotic desire to hire nearly non-existent professionals with universal skillsets, lends credence to the notion that the fourth symptom may, in fact, also be a *cause* of The Digital Disease. It must be allowed that the relationship between these ideas is reflexive, much like the relationship between strategy and structure outlined in the section on isomorphism. Second, the issue of skill specialization and challenges with knowledge transfer are not at all specific to The Digital Disease; in fact, they are distinct problems with the nature of academic library organization itself. What is clear from the literature, though, is that the intentional creation of new organizational divisions and hierarchies either reinforces or generates conditions like the ones discussed in this section. As a result, when an academic library finds the justification to create departments and job titles based on digital preconditions, it is merely exacerbating the situation.

Conclusion

Though The Digital Disease has been used as a lens for analysis, our examination of organizational structures, the use of management buzzwords, the tendency for academic libraries to imitate one another in response to uncertainty, and the hierarchical structure of libraries' effect on skills requirements and knowledge sharing highlight a more broad, general issue with the way academic libraries have organized to address issues of efficiency, relevancy, and contextual uncertainty. The existence of large bodies of management literature on the topic of effective organizational design and organizational change mechanisms, paired with the

relative lack of the same literature in the context of librarianship, suggests that much more work could be done in this area. There are also enticing connections to the field of critical management studies and examinations of knowledge and labour commodification that are beyond the theoretical scope of this paper.

In the abstract, the analysis presented here builds on more general explorations of bureaucracies in libraries pioneered by Lynch (1978), whose presentation of the phenomenon as both a positive and negative force has been more recently explored by Jordan-Makely (2019; 2020). While the symptoms of The Digital Disease may point to hierarchical, top-down management styles as the target for corrective measures, such a conclusion is too simple to draw. Flattening organizations and relying on extensive automation or standardization to “correct” productivity, service, and communication challenges can lead to the fast-food model of management referred to by Ritzer (2011) as McDonaldization, which has been the source of its own debate in the context of academic libraries (Nicholson 2015; Quinn 2015). What I hope has been made clear is that the pre-existing challenges posed by technology do not support an ongoing infatuation with the creation of digitally linked librarian positions and functional departments, and that an exploration of other ways for academic libraries to adapt is warranted. The Digital Disease is an impediment to achieving our mission because it asks academic libraries to divide research, scholarship, and other library functions into binary digital and non-digital aspects, pulling the institution out of step with the work of the students and faculty we support. If academic libraries are indeed shifting to a more research- and learner-centred focus, it makes little sense to align our organizations along lines of distinction that are incoherent to begin with, and that our users do not share. The Digital Disease exists as an echo of librarianship’s penchant for the creation and reinforcement of classifications that are later proved to be inaccurate, and the profession would be well-advised to delete the distinction, empty the digital trash bin, and start work on a new conception.

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